of production means that one gets six monographs for little more than the price of one.

Reviewing this book has reminded me that there is no similar organization in Britain, although there is very great interest in the "neurosciences". It is a model that we might very well imitate. ANTHONY ROBERTSON

OUTSIDERS

Deviancy : The Psychology of Being Different

By Jonathan Freedman and Anthony N. Doob. (Social Psychology: a Series of Monographs, Treatises, and Texts.) Pp. viii + 158. (Academic Press: New York and London, April 1968.) 63*s*.

THE "outsider" has been a major figure of modern European literature, from Albert Camus to John Osborne, and more often than not has been cast as the hero, or more precisely as anti-hero.

Psychological research on deviation has largely concentrated on the attitudes of the majority group to existing deviant groups such as Jews and Negroes. Freedman and Doob, seeking greater control over their variables, decided to define deviancy experimentally by artificially manipulating the results of personality tests taken by groups of five or six subjects (undergraduates) at a time. After each test subjects were shown a predetermined distribution of scores. The score of the subject randomly allocated to the deviant condition appeared at near the ends of the distribution; those of the remainder, designated as non-deviant, clustered around the middle of the distribution. The effect of being made to feel deviant was checked by a self-rating test on which the "deviants" reported themselves as "more different from others" than did the "non-deviants". (A desirable control would have been to administer the self-rating test before, as well as after, the manipulation.) A variety of ingenious and well-controlled experiments were carried out following the deviancy manipulation. Manipulated deviancy was found to have significant effects on affiliation behaviour (like preferred to associate with like) and on aggression (like chose like for reward and unlike for punishment) but not on such social influence variables as conformity and attitude change, in which the effects of the deviancy manipulation were highly specific to the situation and to the type of influence being exerted. The authors state that the type of deviancy set up in their subjects may have been both specialized and limited, and stress the need to repeat the studies on "natural" deviants of a wide variety of types. Another major question for future research is the effect on behaviour of the known existence, or even physical presence, of other deviants. Presumably the attributed prestige of the "deviant" minority is also important—compare the "feeling of deviancy" experienced by a coloured homosexual communist with that of a rowing blue with a double first. Several of the experiments which yielded positive results were carried out some weeks after the deviancy manipulation, indicating its rather powerful nature—students are inclined to have an almost magical belief in the revelatory power of personality tests. At the end of each experiment the nature of the manipulation was explained to the subjects. Although little is said by Freedman and Doob on the matter, the dilemma faced by all such research is that the more effective the manipulation the more disturbing is the experience likely to be for those involved, and many American psychologists are deeply concerned about the ethics of such deceptions.

This book is clearly written, is free from unnecessary jargon and can be recommended as an admirable combination of psychological insight and sound experimental technique applied to an important area of real life social behaviour. M. P. FELDMAN

ATOMISTIC APPROACH

The Plastic Deformation of Metals

By R. W. K. Honeycombe. Pp. xiii + 477. (Arnold: London, May 1968.) 90*s*.

THIS book gives a broadly based description of the deformation behaviour of metals in terms of the deformation characteristics of single crystals. The approach is primarily atomistic in that the phenomena are accounted for mainly in terms of dislocations and point defects. A detailed description of optical and electron microscope and X-ray diffraction observations of plastic deformation processes is given. The author has used his wide experience in research in these and related fields to produce a well balanced account of the interrelation between phenomenological studies of defect structure and the associated mechanical properties. Most aspects of plastic deformation have been covered including some of a more technical nature such as creep, fatigue and fracture.

In the early chapters the geometry of deformation of single crystals by slip is described along with an introduction to the properties of dislocations. The effect of plastic deformation on the density and distribution of dislocation is correlated with the microstructural changes and the mechanical properties. These chapters are followed by similar descriptions of the deformation of single crystals containing solute elements and discrete second phases. At each stage a brief introduction is given to the theory of the hardening produced although the more esoteric and recent theories have not been covered. Three chapters are devoted primarily to the properties and characteristics of polycrystalline materials and these include an account of fibre reinforcement and related phenomena. Finally, the understanding of the tensile deformation of single and polycrystalline metals is directed towards a description of the phenomena which are associated with more complex conditions.

It may be claimed, with some justification, that the revolution that followed the introduction of the concept of dislocations and allowed a much more accurate description of all facets of the phenomena of plastic deformation has reached a stage of general agreement; the main ground has been covered and only the fine detail remains. This text would certainly stand as testimony to this view, for, apart from one or two small sections, notably fibre reinforcement, all the subject matter was known and understood at least five years ago. It is this feature, however, which commends the book to undergraduate students in metallurgy and materials science. The text is clear and well illustrated. The subject is developed in a logical and straightforward way and there is adequate reference to books and papers in related fields. The text, however, must not be regarded as a research text and those who wish to study the recent developments in any of the fields covered should look elsewhere. DEREK HULL

RARE ELEMENTS

Handbook of the Rare Elements

Vol. 1. Trace Elements and Light Elements. By M. A. Filyand and E. I. Semenova. Translated and edited by Michael E. Alferieff. Pp. xvii + 265. (Macdonald (Oldbourne): London, 1968.) 126*s*.

THIS handbook was "originally published in Russian as a single 913 work" presumably soon after 1961. This first volume deals with Ga, In, Tl, Ge, Se and Te (referred to as trace elements) and Li, Be, Rb and Cs (referred to as light elements). Information on each element is mainly tabular and includes structure, density, melting and boiling points, surface tension, heat capacity, resistivity, magnetic susceptibility, attainable degree of purity of the metal and principal alloys and their physical